



CHIROFRSUD - Conservation of 3
cave-dwelling bats in Southern France

LIFE04 NAT/FR/000080



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Project description:

Background

In Europe, bats are considered as good indicators of optimal biodiversity. They are also among the most endangered mammals. Of the 33 French bat species, 31 are present in the most southern part of the country, pointing to the great richness of this area.

However, as in all the other parts of the world, a spectacular decline of the bat populations has been observed. Three species of cave-dwelling bats - whose distribution in France is restricted to the south of the country - are particularly threatened: the Mediterranean horseshoe bat (*Rhinolophus euryale*), the Long-fingered bat (*Myotis capaccinii*) and the Schreiber's bat (*Miniopterus schreibersii*).

The deterioration of their natural habitats and particularly the disturbance of their roosts by human activity - including urbanisation, caving and modern agricultural practices - is the main threat explaining this decline. Moreover, there is a lack of basic scientific knowledge and public awareness of bat ecological requirements.

This project covered 13 Sites of Community Importance (pSCI) - across five regions of southern France - which support 26 bat roosts. These house: more than 56% of the breeding Mediterranean horseshoe bats and 45% of the hibernating individuals; about 30% of the breeding Long-fingered bats and 38% of the hibernating individuals; and about 15% of the Schreiber's bat breeders and

2% of the hibernating individuals.

Objectives

The overall objective of this project was to improve the conservation status of the French populations of the three cave-dwelling bat species: the Mediterranean horseshoe bat (*Rhinolophus euryale*), the Long-fingered bat (*Myotis capaccinii*) and the Schreiber's bat (*Miniopterus schreibersii*).

The project planned to protect 13 breeding, hibernation or transit roosts (Natura 2000 sites), acquire two roosts and ensure the maintenance of favourable conditions of all roosts of the network. It also sought to conserve the bats' foraging habitats in at least 2 pSCIs, by carrying out experimental actions such as wetlands restoration or ecological corridor creation. This was expected to support the three target species, as well as benefitting other bat species sharing the same habitats.

The project aimed to improve the knowledge of the biology, population dynamics, endangered status and ecological requirements of the three species. To inform the elaboration of management recommendations for the foraging habitats favourable to the bats, it planned to study the diet and foraging habitats of the three species concerned by the project.

Finally, it sought to develop a network of bat specialists in the south of France and heighten awareness amongst local people and cavers about the need and means to conserve bat habitats.

Results

The project partnership successfully combined modern technology with the efforts of an estimated 190 volunteers to follow 31 roosts and achieve hugely impressive results. Overall, 19 roosts were permanently protected in some form and encouraging bat population increases were observed during the four-year programme.

The partnership carried out numerous studies to better understand the three bat species. They regularly monitored population numbers at all sites and even installed a device at two sites to automatically count bats in and out of the roost. Another device was used to count human visits to two sites to evaluate the extent of human interference.

The team studied the animals' diets through three separate analyses of their guano to show their dietary preferences. An experimental pond was also established to reintroduce insect prey for the bats. Meanwhile they used radio tracking of a sample of 20 females at six sites to map their hunting areas and identify preferred habitats.

The project blocked access to 12 roosts either permanently or at certain key times of the year. Management conventions were also signed to offer long-term protection of nine roosts. These were agreed between local representatives, landowners, associations and the municipalities to provide for the management of the bats' habitats. Successful long-term partnerships were established

between conservation and caving associations.

This conservation work led to, for example, a record number of Mediterranean horseshoe bats - 2 238 - being observed in hibernation in 2005 at one site in Aquitaine. Other sites saw the return of bats to previously abandoned roosts, such as in a cave in Languedoc-Roussillon, which had been unused by bats for 15 years, but had a population of 80 Long-fingered bats by 2007.

Meanwhile, the project reopened an abandoned mine and secured it from public access. This directly led to the mine being used as a roost by increasing numbers of bats: 650 Schreiber's bats were observed in late 2007. An important tunnel used by horseshoe bats was also acquired by a local conservation agency.

The project published its findings in a technical handbook, which was widely distributed across France and is of use to all agencies interesting in protecting bat roosts. The handbook presents the three bat species, the hows and whys of conserving their roosts and recommendations for management of hunting areas. It was well supported by exhibitions, information panels, pamphlets and a film, used to raise general awareness of the bats and their conservation. The 31 minute film (which can be viewed via the read more section below) won the nature conservation prize at the 2007 International Ornithological Film Festival held in Menigoute, France.

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Environmental issues addressed:

Themes

Species - Mammals

Keywords

monitoring, animal corridor, mine, land purchase, information network, abandoned industrial site, cartography

Target EU Legislation

- Nature protection and Biodiversity
- Directive 92/43 - Conservation of natural habitats and of wild fauna and flora- Habitats Directiv ...

Target species

Miniopterus schreibersii Myotis capaccinii Rhinolophus euryale

Target Habitat types

- 01 - Unknown (site without information)

Natura 2000 sites

SCIFR7200760 MASSIF DE LA RHUNE ET DE CHOLDOCOGAGNA
SCIFR7300898 Vallée de la Dordogne quercynoise
SCIFR7300952 Gorges de l'Aveyron, causses proches et vallée de la Vère
SCIFR8201676 SABLES DU TRICASTIN
SCIFR9101395 LE GARDON ET SES GORGES
SCIFR9101427 GROTTES DE JULIO
SCIFR9101444 LES CAUSSES DU MINERVOIS
SCIFR9301594 LES ALPILLES
SCIFR9301615 Basses gorges du Verdon
SCIFR9301622 LA PLAINE ET LE MASSIF DES MAURES

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Beneficiaries:

Coordinator	Société Française pour l'Etude et la Protection des Mammifères (SFPEM)
Type of organisation	NGO-Foundation
Description	The beneficiary is the French Society for the Study and Protection of Mammals (SFPEM - Société Française pour l'Etude et la Protection des Mammifères). It is an NGO that leads on the national restoration plan for bats.
Partners	Organbidexka Col Libre (OCL), France Espaces Naturels d'Aquitaine (ENA), France Ligue pour la Protection des Oiseaux d'Aquitaine (LPO Aquitaine) Espaces Naturels de Midi-Pyrénées (ENMP), France Syndicat mixte d'Aménagement, de Protection et de Mise en Valeur du Massif et des Gorges du Gardon, France Conseil Général du Gard, France Conservatoire des Espaces Naturels du Languedoc-Roussillon (CEN L-R), France Espace Nature Environnement (ENE), France Groupe Chiroptères de Provence (GCP), France Agence Publique du Massif des Alpilles (APMA) C.I.G.A.L.E.S., France Centre Ornithologique Rhône-Alpes – Drôme (CORA Drôme), France Conseil Général de l'Hérault, France

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Administrative data:

Project reference	LIFE04 NAT/FR/000080
Duration	01-APR-2004 to 01-MAY -2008
Total budget	1,163,389.00 €
EU contribution	581,694.00 €
Project location	Aquitaine(France) Midi-Pyrénées(France) Rhône-Alpes(France) Languedoc-Roussillon(France) Provence-Alpes-Côte d' Azur(France)

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Read more:

Brochure	Title: "Catalogue des protections physiques mises en oeuvre dans le programme LIFE-Nature «Conservation de 3 Chiroptères cavernicoles dans le Sud de la France» 2004–2008" (3.4 MB) Year: 2008 Editor: SFEPM No of pages: 28
Project web site	http://www.sfepm.org/LifeChiropteres.htm
Publication	Title: "Plan de restauration des chiroptères en Rhône-Alpes 2008-2010" (3.2 MB) Author: S.VINCENT, G. ISSARTEL, R. LETSCHER Year: 2008 No of pages: 35
Publication: After-LIFE Conservation Plan	Title: After-LIFE Conservation Plan (FR) Author: Mélanie Némoz, CEFS-INRA Year: 2008 No of pages: 21
Publication: Layman report	Title: Layman report (FR) Year: 2008
Publication: Layman report	Title: Layman report (EN) Year: 2008 No of pages: 11
Publication: Management plan	Title: "Plan de restauration des chiroptères en France Métropolitaine 2008-2012" Year: 2007 No of pages: 79
Publication: Technical report	Title: "Connaissance et conservation des gîtes et habitats de chasse de chiroptères cavernicoles" (9.3 MB) Author: M. NÉMOZ, A. BRISORGUEIL (SFEPM) No of pages: 144
Publication: Technical report	Title: Fiche technique - Construction d'une lavogne sur la commune de Collias (13.3 MB) No of pages: 18
Video link	"Au rythme des chauves-souris" (33')

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